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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/500,991

01/13/2005

Julien Serre

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09/09/2005

AKERMAN SENTERFITT

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EXAMINER

BROADHEAD, BRIAN J

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/500,991

Applicant(s)

SERRE

Examiner

Brian J. Broadhead

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7-8-04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 7 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims recites the limitation "taking into account all the segments which belong to all the levels of the network", it is not clear or explained how a segment can belong to more than one level at a time.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 through 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 1 recites the limitation "the two minimal cost paths" in line 13. There is insufficient antecedent basis for this limitation in the claim.
6. Claim 1 recites the limitation "the minimal cost path" in line 7. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 2 recites the limitation "the points" in line 2. There is insufficient antecedent basis for this limitation in the claim.
8. Claim 2 recites the limitation "the corresponding graph" in line 2. There is insufficient antecedent basis for this limitation in the claim.
9. Claim 3 recites the limitation "said point" in line 2. There is insufficient antecedent basis for this limitation in the claim.
10. Claim 4 recites the limitation "the point" in 2. There is insufficient antecedent basis for this limitation in the claim.
11. Claim 4 recites the limitation "the basic cost" in line 2. There is insufficient antecedent basis for this limitation in the claim.
12. Claim 5 recites the limitation "the lowest level minf" in line 5. There is insufficient antecedent basis for this limitation in the claim.
13. Claim 5 recites the limitation "the graph" in line 6. There is insufficient antecedent basis for this limitation in the claim.
14. Claim 6 recites the limitation "the lowest level minf" in line 3. There is insufficient antecedent basis for this limitation in the claim.
15. Claim 6 recites the limitation "said threshold for the two graphs" in line 4. There is insufficient antecedent basis for this limitation in the claim.
16. Claim 6 recites the limitation "the two graphs" in line 7. There is insufficient antecedent basis for this limitation in the claim. Which two graphs? Claim 1 seems to disclose three graphs.

17. Claim 7 recites the limitation "the graph" in line 2. There is insufficient antecedent basis for this limitation in the claim.
18. Claim 10 recites the limitation "the two graphs" in line 1. There is insufficient antecedent basis for this limitation in the claim. Which two graphs? Claim 1 seems to disclose three graphs.
19. Claim 11 recites the limitation "the two graphs" in line 2. There is insufficient antecedent basis for this limitation in the claim. Which two graphs? Claim 1 seems to disclose three graphs.
20. Claim 12 recites the limitation "the optimal interference node" in line 2. There is insufficient antecedent basis for this limitation in the claim.
21. Claim 12 recites the limitation "the two minimal cost paths" in line 3. There is insufficient antecedent basis for this limitation in the claim.
22. Claim 1 through 14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: In claim one "a path graph is developed" and then "the two path graphs are developed", how are these graphs related? Are the two paths graphs what constitute the first mentioned path graph? All of the paths need to be more clearly related to each other in the claim language.
23. Claim 8 recited limitations that don't seem to make sense. The first limitations can not be comprehended and prior art has not been applied.

Claim Rejections - 35 USC § 102

24. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

25. Claims 1-7, 9, 11, and 12, are rejected under 35 U.S.C. 102(e) as being anticipated by Khavakh et al., 2004/0039520.

26. Khavakh et al. disclose a cost is attributed to each segment of the network; a path graph is developed, substantially starting from at least one of the two points (A,B); and the minimal cost path which connects the two points (A,B) is determined, the method being characterized in that two path graphs are developed, substantially starting from two points (A,B) respectively; the development of the two graphs is interrupted when they comprise at least one first common interference node (Pi); the two minimal cost paths belonging respectively to the two graphs are determined; and the two minimal cost paths are connected in order to obtain the minimal cost path between the two points (A,B); and the two graphs are developed simultaneously in paragraphs 100 and 117; in the case when at least one of the points is substantially at the location of a node, the corresponding graph is developed starting from said node in paragraph 35; for at least one of the two points (A,B), at least two adjacent nodes (PA,n, PA,n+1) of the said point (A) are sought, a non-zero basic cost is attributed to each of these two nodes

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(PA,n, PA,n+1), and a single graph is developed starting from these two nodes (PA,n, PA,n+1) in paragraph 65-66; since the two nodes (PA,n, PA,n+1) form a segment on which the point (A) is substantially situated the basic cost of each node (PA,n, PA,n+1) is determined by proportionality starting from the cost of the segment between these two nodes (PA,n, PA,n+1) in paragraphs 65-66; the segments are classified according to a plurality of network levels; during the development of at least one of the two graphs, the number of segments of the graph which belong to the lowest level minf is calculated; and starting from a predefined threshold of number of segments of level minf the graph is developed taking into account only the segments which belong to the levels which are strictly higher than the level minf in paragraphs 139, 153, and 154; during the development of the two graphs, the number of segments of each graph which belong to the lowest level minf is calculated, and when the number of segments of level minf has reached the said threshold for the two graphs, the development of the two graphs is continued, taking into account only the segments which belong to the levels which are strictly higher than the level minf in paragraphs 139, 153, and 154; each graph is developed in a globally concentric manner in figure 21; wherein, having found the said first common interference node (Pi), the optimal interference node (Pio) is sought from amongst the nodes already analyzed, in order to determine the two minimal cost paths which contain the optimal interference node (Pio) in paragraph 117.

Claim Rejections - 35 USC § 103

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

28. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Khavakh et al., 2004/0039520 as applied to claim 9 above, and further in view of Verstraete, 5170353.

29. Khavakh et al. disclose the limitations as set forth above. They do not disclose using a bucket algorithm. Verstraete teach using a bucket algorithm on lines 15-21, on column 2. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the bucket algorithm of Verstraete in the invention of Khavakh et al. because such modification would provide a way to use weighting factors in the path determining process as disclosed on lines 55-65, on column 1.

30. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khavakh et al., 2004/0039520 as applied to claim 1 above, and further in view of Gazis et al., 5610821.

31. Khavakh et al. disclose the limitations as set forth above. They do not disclose using a server with a communication block, a block for receiving requests from terminals, a block for road network data, classification of road segments, labeling segments, a calculation module for graph development detection of segment level changes, and minimal cost path determination, and a transmission block. Gazis et al. teaches using a server for route calculation instead of a terminal, using a server with a communication block, a block for receiving requests from terminals, a block for road

network data, classification of road segments, labeling segments, a calculation module for graph development detection of segment level changes, and minimal cost path determination, and a transmission block on lines 1 on column 3, through line 48, on column 4. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a server system like Gazis et al. in the invention of Khavakh et al. because such modification would allow calculation of routes on non-static data and to have optimal use of the road network as stated on lines 13-16, on column 1, of Gazis et al.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Broadhead whose telephone number is 571-272-6957. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bjy

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